

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/834,941

REMARKS

Claims 4, 9 and 10 are pending in the application. Claims 9 and 10 are added by way of this Amendment as discussed in further detail below.

The drawings filed April 16, 2002 are objected to by the Examiner. The Examiner has indicated that the drawings do not show every feature of the invention specified by the claim; specifically, "the varying dimension of the rectilinear portions must be shown or the feature canceled from the claim".

In addition, claim 4 is rejected under 35 U.S.C. § 112, first paragraph for containing subject matter that is not described in the specification.

The present invention is directed to the use of polymorphic cross-sections. Polymorphic is defined as being able to assume different forms (see *Merriam Webster's Collegiate Dictionary*, Tenth Edition). As discussed throughout the pending application, the stator coil has polymorphic cross-sections. Figure 1 illustrates an example of this feature, wherein the polymorphic cross-sections have different forms, i.e., varying dimensions. Figure 1 illustrates a variety of shapes and sizes within the tooth portions.

In view of the foregoing, Figure 1 illustrates the coil having varying dimensions. Applicants also respectfully note that drawings are only required "where necessary for the understanding of the subject matter sought to be patented". See 37 C.F.R. § 1.81. As the feature of the varying dimensioned cross-sections is explained in the specification and drawings, one of ordinary skill in the art would understand the subject matter sought to be patented.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/834,941

Since the term polymorphic is commonly understood to mean that an object is able to assume different forms, and Fig. 1 illustrates the different forms, i.e., varying dimensions, claim 4 is supported by the Figures and specification.

Thus, Applicants request the Examiner to withdraw the drawing objection and rejection under § 112, first paragraph.

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kurihashi et al. (JP 63-194543), Schorm et al. (5,341,561) and Sumi (JP 6-303745).

Analysis

Claim 4 is patentable because the combination of cited references fails to teach or suggest a stator coil wherein the coils are accommodated with the slot portions, having a polymorphic cross-section so that the coils have varying dimensions within the slots.

Kurhashi and Schorm disclose uniform cross-sections, and do not teach or suggest the use of polymorphic cross-sections or that the coils can have varying dimensions.

Sumi discloses a method for installing coils inside the original slots with a high space factor. The method includes the steps of attaching a protruding piece (55) and a protruding piece (57) to the front ends of the teeth (11) of the pole part (22), as shown in Fig. 2; providing the coils (77) to the insulated slot (44); attaching a jig (100) to the parallel surface of the protruding pieces; and sliding the jig on the parallel surface toward the original slot, as shown in Fig. 3. By sliding the jig on the parallel surface toward the original slot, the outside of the coils (77) are pressed by the jig (100), whereby the coils (77) are pressed into the original slots. Therefore, many coils can be wound up to a point at which they come off of the protruding pieces (56). As

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/834,941

a result, coils wound up to the point at which they come off of the protruding pieces (56) are pressed into the original slots by making the jig slide on the parallel surface.

However, Sumi does not teach or suggest that the coils would be deformed by the step of sliding the jig on the parallel surface. Namely, Sumi does not teach or suggest that the coils would be caused to have varying dimensions or to be polymorphic.

Thus, even if one were to combine the references, one would still fail to arrive at the claimed invention.

In addition, Applicants add new claims to further define the invention. In particular, claim 9 is directed to the fact that the coils are deformable, and claim 10 recites that the coils have varying cross sections within one slot. These claims are patentable for these additional reasons, as well as their dependency on claim 4.

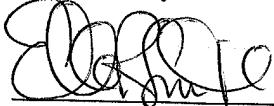
Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/834,941

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Ellen R. Smith
Registration No. 43,042

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE



23373

PATENT TRADEMARK OFFICE

Date: March 19, 2003

Attorney Docket No.: Q63931